NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

MIL-PRF-55339/13A
11 January 1977
SUPERSEDING
MIL-A-55339/13
6 May 1975

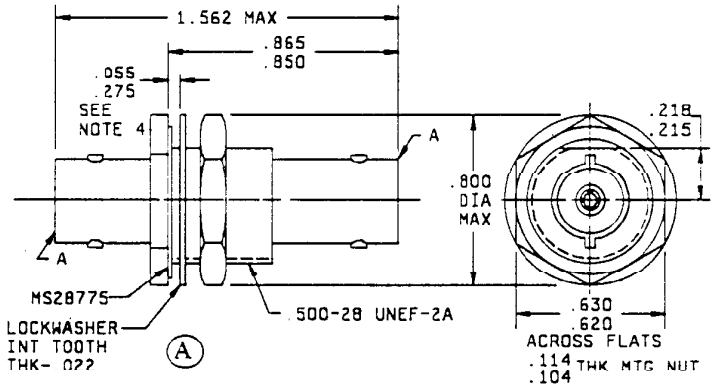
PERFORMANCE SPECIFICATION

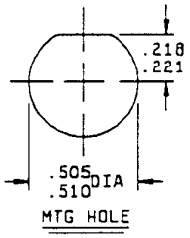
Ⓐ

ADAPTERS, CONNECTOR, COAXIAL, RADIO FREQUENCY,
(WITHIN SERIES BNC (HERMETIC AND NON-HERMETIC)), CLASS 2, STRAIGHT RECEPTACLE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for procuring the adapters described herein shall consist of this specification and the latest issue of Specification MIL-PRF-55339.





INCHES	MM	INCHES	MM
.022	.56	.505	12.83
.055	1.40	.510	12.95
.104	2.64	.620	15.75
.114	2.90	.630	16.00
.215	5.46	.800	20.32
.218	5.54	.850	21.59
.221	5.61	.865	21.97
.275	6.98	1.562	39.67
.500	12.70		

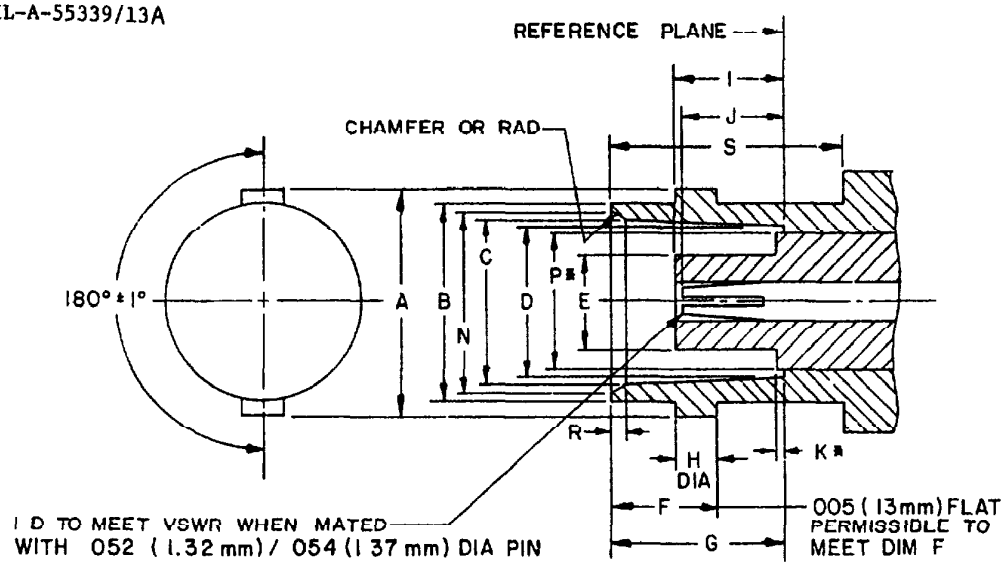
Reference	Series	Contact	Figure
A & B	BNC	Socket	2

NOTES:
1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. All undimensioned pictorial representations are for reference purposes only.
4. Panel thickness .055 minimum, .275 maximum.

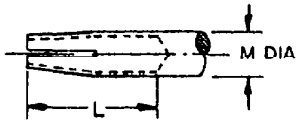
FIGURE 1. General configuration.

Ⓐ denotes changes

FSC 5935



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.432(10.97)	.436(11.07)
B	.378 (9.60)	.382 (9.70)
C	.327 (8.31)	.333 (8.46)
D	.319 (8.10)	.321 (8.15)
E	- - - -	.186 (4.72)
F	.204 (5.18)	.208 (5.28)
G	.327 (8.31)	.335 (8.51)
H	.075 (1.91)	.081 (2.06)
I	.188 (4.78)	.208 (5.28)
J	.186 (4.72)	.206 (5.23)
K*	- - - -	.006 (.15)
L	.195 (4.95)	- - - -
M	.081 (2.06)	.087 (2.21)
N	.346 (8.79)	.356 (9.04)
P*	- - - -	.256 (6.50)
R	.015 (.38)	.030 (.76)
S	.414(10.52)	- - - -



P dimension applies to that portion (if applicable) of dielectric which extends beyond reference plane by dimension K

NOTES:
1. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
2. Concave depression .100 (2.54 mm) x .005 (.13 mm) deep between studs permissible.
3. All undimensioned pictorial representations are for reference purposes only.

FIGURE 2. Mating dimensions for socket contact terminations.

DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nom.

Working voltage: Sea level - 500 Vrms.
70,000 feet - 125 Vrms.

Frequency range: 0 to 4 GHz.

Temperature range: -65° to +165°C

PERFORMANCE (installation torque is not applicable)

Dimensions: See figures 1 and 2.

Center contact retention: Axial force - 6 lb, min.
Torque - Not applicable.

Force to engage and disengage: Longitudinal force - 3 lb, max
Torque - 2.5 in. lb, max.

Coupling proof torque: Not applicable

Mating characteristics:
Center contact (socket)
Oversize test pin dia - .057 in, min
Insertion depth - .125 in, min
No. of insertions - 1
Max test pin (insertion force test):
Steel test pin dia - .054 in, min
Pin finish - 16 microinches
Insertion force - 2 lb, max.
No. of insertions - 1
Min test pin (withdrawal force)
Steel test pin dia - .052 in, max
Pin finish - 16 microinches
Withdrawal force - 2 oz, min
No. of withdrawals - 1
Outer contact: Not applicable

Permeability: 2.0

(1) Seal

	Dash No. 00492	Dash No. 00001 1/
Hermetic	- 1 x 10^{-8} atm cm^3/s (center contact to body)	Not applicable
Pressurized	- Not applicable	30 psi, max
Weatherproof	- 30 psi, max (mounting seal)	30 psi, max (mounting seal)

Insulation resistance: 5,000 megohms, min

VSWR: 1.40:1 max for hermetic and 1.25:1 max for non-hermetic at 5 to 4 GHz

RF leakage (total): -55 dB min, 2 to 3 GHz

RF insertion loss: 0.5 dB max for hermetic and 0.2 dB max for non-hermetic, 3 GHz
$(.144 \sqrt{F(GHz)})$ dB max tested at 3 GHz)

Durability: 500 cycles minimum at 12 cycles/min maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements

Dielectric withstanding: Test voltage - 1,500 Vrms, min (sea level)

1/ Internal parts shall be constructed of nonferro-magnetic material

Contact resistance (milliohms, max):

Contact	Initial	After
Center	2.5	3.0
Outer	0.5	Not applicable

Vibration, high frequency: Interruptions - 1 µs, max.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level: Voltage - 375 V, min.
Altitude - 70,000 feet, min.

RF high potential withstanding voltage: RF voltage - 1,000 Vrms, min.
Frequency - 5 MHz, min.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: Not applicable.

MARKING: As specified in MIL-A-55339.
Part No. M55339/13-00492. Hermetic
-00001. Non-hermetic

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation 1/
M55339/13-00492	MS35177 REB49098 UG-492D/U

1/ The superseded part number or the type designation is for cross reference only. Where a superseded part number or type designation is not given, none was assigned or will be assigned.

Custodians:
Army - EL
Navy - EC
Air Force - 85

Review activities:
Army - MU, MI, EL,AT
Navy - SH
Air Force - 11, 99
DSA - ES

User activities.
Army - AT, MU
Navy - AS, MC
Air Force - 19

Preparing activity
Army - EL

Agent
DSA - ES

(Project 5935-2017-2)

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	☐ USER
b. ADDRESS *(Street, City, State, ZIP Code)*	☐ MANUFACTURER
	☐ OTHER *(Specify)* _____

5 PROBLEM AREAS

a. Paragraph Number and Wording.

b. Recommended Wording

c. Reason/Rationale for Recommendation

6 REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional	b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional	8. DATE OF SUBMISSION *(YYMMDD)*